



**Information Update**

**Manitoba  
Agriculture  
and Food**



**Guidelines For Estimating**

**Bison Cow-Calf**

**Production Costs**

**Based on a 60 Head Cow Herd**

**[www.gov.mb.ca/agriculture/](http://www.gov.mb.ca/agriculture/)**

**Date: January, 2002**

This guide is designed to provide you with planning information and a format for calculating costs of production of a bison cow calf enterprise. The production costs included in this enterprise budget is not a cost study of the bison industry in Manitoba, they are estimated costs based on accepted production practices and current market conditions.

The budget estimates are based on a number of assumptions which are clearly defined in the supporting pages. Input costs are based on recommended practices and/or information obtained from producers. Good management is assumed in that a balanced feeding program is being followed, bison are on a herd health program and handling facilities are included.

The guideline can be useful for comparison purposes. Comparison of costs at different levels of production can be made with other farms, the farm over a period of time or comparing the plan with the actual results at the end of the planning period.

The budget may be adjusted to reflect your unique situation by substituting your own figures in the appropriate places. Each bison producer is encouraged to determine their own costs based on their own inputs, pasture program and level of management.

Also available, on the Manitoba Agriculture and Food website, is an Excel spreadsheet and it can be downloaded from the following address:  
**<http://www.gov.mb.ca/agriculture/>**

### Bison Cow-Calf Production Costs - Summary

| <b>A. Operating Costs</b>                 | <b>\$/Cow</b>   | <b>Total</b>    | <b>Your Costs</b> |
|-------------------------------------------|-----------------|-----------------|-------------------|
| 1. Feed Costs                             |                 |                 |                   |
| 1.01 Grain                                | \$17.92         | \$1,075         |                   |
| 1.02 Hay                                  | \$128.67        | \$7,720         |                   |
| 1.03 Salt & Minerals                      | \$18.07         | \$1,084         |                   |
| 1.04 Creep Feed                           | <u>\$9.72</u>   | <u>\$583</u>    |                   |
| <b>Total Feed Cost</b>                    | <b>\$174.38</b> | <b>\$10,462</b> |                   |
| 2. Other Operating Costs                  |                 |                 |                   |
| 2.01 Veterinary Medicine & Supplies       | \$20.68         | \$1,241         |                   |
| 2.02 Fuel, Maintenance & Repairs          | \$25.00         | \$1,500         |                   |
| 2.03 Utilities                            | \$3.33          | \$200           |                   |
| 2.04 Marketing & Transportation           | \$10.00         | \$600           |                   |
| 2.05 Death Loss                           | \$23.67         | \$1,420         |                   |
| 2.06 Insurance                            | \$14.60         | \$876           |                   |
| 2.07 Herd Replacement                     | \$127.08        | \$7,625         |                   |
| 2.08 Miscellaneous                        | <u>\$8.33</u>   | <u>\$500</u>    |                   |
| Subtotal Operating Costs                  | \$407.07        | \$24,424        |                   |
| 2.09 Operating Interest                   | <u>\$12.21</u>  | <u>\$733</u>    |                   |
| <b>Total Operating Costs</b>              | <b>\$419.28</b> | <b>\$25,157</b> |                   |
| <b>B. Fixed Costs</b>                     |                 |                 |                   |
| 3. Depreciation                           |                 |                 |                   |
| 3.01 Facilities                           | \$28.75         | \$1,725         |                   |
| 3.02 Machinery & Equipment                | \$66.67         | \$4,000         |                   |
| 4. Investment                             |                 |                 |                   |
| 4.01 Facilities                           | \$11.50         | \$690           |                   |
| 4.02 Machinery & Equipment                | \$24.00         | \$1,440         |                   |
| 4.03 Livestock                            | \$94.67         | \$5,680         |                   |
| 4.03 Pasture Land & Fencing               | <u>\$95.66</u>  | <u>\$5,740</u>  |                   |
| <b>Total Fixed Costs</b>                  | <b>\$321.25</b> | <b>\$19,275</b> |                   |
| <b>Total Operating and Fixed Costs</b>    | <b>\$740.53</b> | <b>\$44,432</b> |                   |
| <b>C. Labour</b>                          | <b>\$40.00</b>  | <b>\$2,400</b>  |                   |
| <b>Total Cost of Production</b>           | <b>\$780.53</b> | <b>\$46,832</b> |                   |
| <b>Breakeven selling price/head</b>       | <b>\$/head</b>  |                 |                   |
| A. Operating Costs                        | \$465.87        |                 |                   |
| B. Operating & Fixed Costs                | \$822.81        |                 |                   |
| C. Operating, Labour & Fixed Cost         | \$867.26        |                 |                   |
| Breakeven Price/head = Cost + % calf crop |                 |                 |                   |

## Bison Cow-Calf Production Cost Worksheet

### Assumptions

1. This budget outlines the cost of production for a Bison Cow-Calf operation only.
2. Handling facilities are estimated at current market value with an estimated useful life of 20 years.
3. Machinery and equipment are estimated at current market value with an estimated useful life of 12 years.
4. Replacement heifers are valued at fair market value.
5. The budget assumes an average weaning weight of 480 lbs.
6. This budget is based on 200 days grazing and 165 days supplemental feeding.

### A. Operating Costs

|                             |                |              |  | <u>Your Cost</u> |
|-----------------------------|----------------|--------------|--|------------------|
| <b>1. Feed Costs</b>        |                |              |  |                  |
| <b>1.01 Flushing Ration</b> |                |              |  |                  |
| Cows                        | 4.0            | lbs/cow/day  |  |                  |
| x                           | 60             | days/year    |  |                  |
| x                           | <u>\$0.07</u>  | /lb          |  |                  |
| =                           | \$16.80        | /cow         |  |                  |
|                             |                |              |  |                  |
| Bulls                       | 4.0            | lbs/bull/day |  |                  |
| x                           | 60             | days         |  |                  |
| x                           | <u>\$0.07</u>  | /lb          |  |                  |
| x                           | 4              | bulls        |  |                  |
| +                           | <u>60</u>      | cows         |  |                  |
| =                           | \$1.12         | /cow         |  |                  |
|                             |                |              |  |                  |
| <b>Total</b>                | <b>\$17.92</b> | <b>/cow</b>  |  |                  |
|                             |                |              |  |                  |
| <b>1.02 Hay</b>             |                |              |  |                  |
| Cows                        | 3.00           | tons         |  |                  |
| x                           | <u>\$40.00</u> | /ton         |  |                  |
| =                           | \$120.00       | /cow         |  |                  |

**Your Cost**

|              |  |                 |             |       |
|--------------|--|-----------------|-------------|-------|
| Bulls        |  | 3.25            | tons        | _____ |
| x            |  | \$40.00         | /ton        | _____ |
| x            |  | 4               | bulls       | _____ |
| +            |  | 60              | cows        | _____ |
| =            |  | \$8.67          | /cow        | _____ |
| <b>Total</b> |  | <b>\$128.67</b> | <b>/cow</b> | _____ |

**1.03 Salt and Minerals**

|              |  |                |                       |       |
|--------------|--|----------------|-----------------------|-------|
| Cows         |  | 16             | lbs salt/cow/year     | _____ |
| x            |  | \$0.14         | /lb                   | _____ |
| =            |  | \$2.24         | /cow                  | _____ |
|              |  | 35             | lbs mineral/cow/year  | _____ |
| x            |  | \$0.42         | /lb                   | _____ |
| =            |  | \$14.70        | /cow                  | _____ |
| Bulls        |  | 16             | lbs salt/bull/year    | _____ |
| x            |  | \$0.14         | /lb                   | _____ |
| x            |  | 4              | bulls                 | _____ |
| +            |  | 60             | cows                  | _____ |
| =            |  | \$0.15         | /cow                  | _____ |
|              |  | 35             | lbs mineral/bull/year | _____ |
| x            |  | \$0.42         | /lb                   | _____ |
| x            |  | 4              | bulls                 | _____ |
| +            |  | 60             | cows                  | _____ |
| =            |  | \$0.98         | /cow                  | _____ |
| <b>Total</b> |  | <b>\$18.07</b> | <b>/cow</b>           | _____ |

**1.04 Creep Feed**

|   |  |        |             |       |
|---|--|--------|-------------|-------|
|   |  | 2      | lbs/day     | _____ |
| x |  | 60     | days        | _____ |
| x |  | \$0.09 | /lb         | _____ |
| x |  | 90.0   | % calf crop | _____ |
| = |  | \$9.72 | /cow        | _____ |

Your Cost**2. Other Operating Costs****2.01 Veterinary Medicine & Supplies****Calf medication**

|   |              |                    |       |
|---|--------------|--------------------|-------|
|   | \$0.55       | blackleg           | _____ |
| + | \$0.00       | vitamin            | _____ |
| + | \$3.80       | parasite control   | _____ |
| = | \$4.35       | total              | _____ |
| x | <u>90.00</u> | <u>% calf crop</u> | _____ |
| = | \$3.92       | /cow               | _____ |

**Cow medication**

|   |               |                         |       |
|---|---------------|-------------------------|-------|
|   | \$4.00        | parasite control        | _____ |
| + | \$0.00        | scourguard 3            | _____ |
| + | \$0.00        | footrot, louse control, | _____ |
| + | <u>\$2.56</u> | <u>ADE</u>              | _____ |
| = | \$6.56        | /cow                    | _____ |

**Bull medication**

|   |           |                  |       |
|---|-----------|------------------|-------|
|   | \$12.00   | parasite control | _____ |
| + | \$60.00   | semen test       | _____ |
| x | 4         | bulls            | _____ |
| + | <u>60</u> | <u>cows</u>      | _____ |
| = | \$4.80    | /cow             | _____ |

**Herd health program**

|   |           |              |       |
|---|-----------|--------------|-------|
|   | \$90.00   | /hour charge | _____ |
| x | 2         | hours        | _____ |
| + | <u>60</u> | <u>cows</u>  | _____ |
| = | \$3.00    | /cow         | _____ |

**Mileage**

|   |           |             |       |
|---|-----------|-------------|-------|
|   | \$0.90    | /km charge  | _____ |
| x | 160       | kilometres  | _____ |
| x | 1         | visits      | _____ |
| + | <u>60</u> | <u>cows</u> | _____ |
| = | \$2.40    | /cow        | _____ |

|              |          |                |             |       |
|--------------|----------|----------------|-------------|-------|
| <b>Total</b> | <b>=</b> | <b>\$20.68</b> | <b>/cow</b> | _____ |
|--------------|----------|----------------|-------------|-------|

**Your Cost****2.02 Fuel, Oil, Repairs & Maintenance****Machinery**

|   |          |                       |  |
|---|----------|-----------------------|--|
|   | \$500.00 | annual fuel cost      |  |
| + | \$500.00 | oil, repairs & maint. |  |
| + | 60       | <u>cows</u>           |  |
| = | \$16.67  | /cow                  |  |

**Buildings, fences etc.**

|   |          |                  |  |
|---|----------|------------------|--|
|   | \$500.00 | repairs & maint. |  |
| + | 60       | <u>cows</u>      |  |
| = | \$8.33   | /cow             |  |

**Total** = **\$25.00** /cow

**2.03 Utilities**

|   |          |             |  |
|---|----------|-------------|--|
|   | \$200.00 | annual cost |  |
| + | 60       | <u>cows</u> |  |
| = | \$3.33   | /cow        |  |

**2.04 Marketing & Transportation (Culls)**

|   |         |             |  |
|---|---------|-------------|--|
|   | \$600   | annual cost |  |
| + | 60      | <u>cows</u> |  |
| = | \$10.00 | /cow        |  |

**2.05 Death Loss**

|             |         |                  |  |
|-------------|---------|------------------|--|
| <b>Cows</b> | \$2,000 | /cow             |  |
| x           | 1.00    | % mortality rate |  |
| =           | \$20.00 | /cow             |  |

|              |         |                  |  |
|--------------|---------|------------------|--|
| <b>Bulls</b> | \$5,500 | /bull            |  |
| x            | 1.00    | % mortality rate |  |
| x            | 4       | bulls            |  |
| +            | 60      | <u>cows</u>      |  |
| =            | \$3.67  | /cow             |  |

**Total** **\$23.67** /cow

**Your Cost****2.06 Insurance**

|              |          |                |                        |  |
|--------------|----------|----------------|------------------------|--|
|              |          | \$34,500       | bldg & equip invest    |  |
| x            |          | \$0.60         | cost/\$100 Capital     |  |
| +            |          | \$100          | units of \$100         |  |
| +            |          | 60             | cows                   |  |
| =            |          | \$3.45         | /cow                   |  |
|              |          | \$142,000      | total for herd         |  |
| +            |          | \$100          | units of \$100         |  |
| x            |          | \$0.45         | insurance rate/\$100   |  |
| +            |          | 60             | cows                   |  |
| =            |          | \$10.65        | /cow                   |  |
|              |          | \$30.00        | coverage for liability |  |
| +            |          | 60             | cows                   |  |
| =            |          | \$0.50         | /cow                   |  |
| <b>Total</b> | <b>=</b> | <b>\$14.60</b> | <b>/cow</b>            |  |

**2.07 Herd Replacement**

|              |  |                 |                    |  |
|--------------|--|-----------------|--------------------|--|
| Cows         |  | \$2,000         | bred heifer        |  |
| -            |  | \$525           | cull cow           |  |
| x            |  | 5.00            | % replacement rate |  |
| =            |  | \$73.75         | /cow               |  |
| Bulls        |  | \$5,500         | bull value         |  |
| -            |  | \$1,500         | bull cull value    |  |
| x            |  | 20.00           | % replacement rate |  |
| x            |  | 4               | number of bulls    |  |
| +            |  | 60              | cows               |  |
| =            |  | \$53.33         | /cow               |  |
| <b>Total</b> |  | <b>\$127.08</b> | <b>/cow</b>        |  |

**2.08 Miscellaneous**

|   |  |               |                       |  |
|---|--|---------------|-----------------------|--|
|   |  | \$500         | total office expenses |  |
| + |  | 60            | cows                  |  |
| = |  | <b>\$8.33</b> | <b>/cow</b>           |  |

**Your Cost****2.09 Operating Interest**

(Operating interest is charged on one half of the subtotal operating costs.)

|   |          |                          |       |
|---|----------|--------------------------|-------|
|   | \$407.07 | subtotal operating costs | _____ |
| + | 2        | average                  | _____ |
| x | 6.0      | % operating interest     | _____ |
| = | \$12.21  | /cow                     | _____ |

Your Cost**Capital Costs**

|                                   |                  |       |
|-----------------------------------|------------------|-------|
| <b>Handling Facilities</b>        |                  |       |
| Holding Chutes                    | \$6,000          | _____ |
| Troughs & Miscellaneous           | \$2,000          | _____ |
| Waterers (2 @ \$ 1000)            | \$2,000          | _____ |
| Squeeze, Gates & Scale            | \$6,000          | _____ |
| Well & Pressure System            | \$3,500          | _____ |
| Pens (working & sorting)          | <u>\$15,000</u>  | _____ |
| Total Building Cost               | <b>\$34,500</b>  | _____ |
| <b>Machinery &amp; Equipment:</b> |                  |       |
| Bale shredder                     | \$10,000         | _____ |
| Tractor & Loader                  | <u>\$50,000</u>  | _____ |
| Total                             | <b>\$60,000</b>  | _____ |
| Land                              | \$72,000         | _____ |
| Fence                             |                  |       |
| - perimeter                       | \$28,000         | _____ |
| - internal                        | <u>\$6,000</u>   | _____ |
| Total                             | <b>\$34,000</b>  | _____ |
| <b>Breeding Stock</b>             |                  |       |
| Cows                              | \$120,000        | _____ |
| Bulls                             | <u>\$22,000</u>  | _____ |
| Total                             | <b>\$142,000</b> | _____ |
| <b>Total Capital Costs</b>        | <b>\$342,500</b> | _____ |

**B. Fixed Costs**

Original Cost - Salvage Value  
Useful Life

**Your Cost****3. Depreciation****3.01 Handling Facilities**

|   |                |                   |       |
|---|----------------|-------------------|-------|
|   | \$34,500       | original value    | _____ |
| - | \$0            | salvage value     | _____ |
| + | 20             | years useful life | _____ |
| + | 60             | <u>cows</u>       | _____ |
| = | <b>\$28.75</b> | <u>/cow</u>       | _____ |

**3.02 Machinery & Equipment****Tractor & Loader**

|   |                |                   |       |
|---|----------------|-------------------|-------|
|   | \$50,000       | original value    | _____ |
| - | \$10,000       | salvage value     | _____ |
| + | 12             | years useful life | _____ |
| + | 60             | <u>cows</u>       | _____ |
| = | <b>\$55.56</b> | <u>/cow</u>       | _____ |

**Miscellaneous Machinery**

|   |                |                   |       |
|---|----------------|-------------------|-------|
|   | \$10,000       | original value    | _____ |
| - | \$2,000        | salvage value     | _____ |
| + | 12             | years useful life | _____ |
| + | 60             | <u>cows</u>       | _____ |
| = | <b>\$11.11</b> | <u>/cow/year</u>  | _____ |

|              |          |                |             |       |
|--------------|----------|----------------|-------------|-------|
| <b>Total</b> | <b>=</b> | <b>\$66.67</b> | <u>/cow</u> | _____ |
|--------------|----------|----------------|-------------|-------|

**4. Investment:**

**Original Value + Salvage Value x Investment Rate**

**2**

**4.01 Handling Facilities**

|   |                |                       |       |
|---|----------------|-----------------------|-------|
|   | \$34,500       | total building value  | _____ |
| + | \$0            | salvage value         | _____ |
| + | 2              | average               | _____ |
| x | 4.00           | % investment interest | _____ |
| + | 60             | <u>cows</u>           | _____ |
| = | <b>\$11.50</b> | <u>/cow</u>           | _____ |

**Your Cost****4.02 Machinery & Equipment****Tractor and Loader**

|   |          |                       |       |
|---|----------|-----------------------|-------|
|   | \$50,000 | original value        | _____ |
| + | \$10,000 | salvage value         | _____ |
| ÷ | 2        | average               | _____ |
| x | 4.00     | % investment interest | _____ |
| ÷ | 60       | <u>cows</u>           | _____ |
| = | \$20.00  | /cow                  | _____ |

**Miscellaneous Machinery**

|   |          |                       |       |
|---|----------|-----------------------|-------|
|   | \$10,000 | original value        | _____ |
| + | \$2,000  | salvage value         | _____ |
| ÷ | 2        | average               | _____ |
| x | 4.00     | % investment interest | _____ |
| ÷ | 60       | <u>cows</u>           | _____ |
| = | \$4.00   | /cow                  | _____ |

|              |          |                |             |       |
|--------------|----------|----------------|-------------|-------|
| <b>Total</b> | <b>=</b> | <b>\$24.00</b> | <b>/cow</b> | _____ |
|--------------|----------|----------------|-------------|-------|

**4.03 Livestock**

|             |         |                       |       |
|-------------|---------|-----------------------|-------|
| <b>Cows</b> | \$2,000 | /cow                  | _____ |
| x           | 4.00    | % investment interest | _____ |
| =           | \$80.00 | /cow                  | _____ |

|              |         |                       |       |
|--------------|---------|-----------------------|-------|
| <b>Bulls</b> | \$5,500 | bull value            | _____ |
| x            | 4.00    | % investment interest | _____ |
| x            | 4       | bulls                 | _____ |
| ÷            | 60      | <u>cows</u>           | _____ |
| =            | \$14.67 | /cow                  | _____ |

|              |          |                |             |       |
|--------------|----------|----------------|-------------|-------|
| <b>Total</b> | <b>=</b> | <b>\$94.67</b> | <b>/cow</b> | _____ |
|--------------|----------|----------------|-------------|-------|

**4.04 Pasture****Land**

|   |          |                       |       |
|---|----------|-----------------------|-------|
|   | 8        | acres/cow             | _____ |
| x | \$150.00 | /acre                 | _____ |
| x | 4.00     | % investment interest | _____ |
| = | \$48.00  | /cow                  | _____ |

|                       |          |                |                       | <u>Your Cost</u> |
|-----------------------|----------|----------------|-----------------------|------------------|
| Taxes                 |          |                |                       |                  |
|                       |          | 8              | acres/cow             |                  |
| x                     |          | <u>\$1.00</u>  | <u>/acre</u>          |                  |
| =                     |          | \$8.00         | /cow                  |                  |
| Depreciation on fence |          |                |                       |                  |
|                       |          | \$28,000       | perimeter fence       |                  |
| +                     |          | \$6,000        | cross fence           |                  |
| =                     |          | \$34,000       | fence cost            |                  |
| -                     |          | \$0            | salvage value         |                  |
| +                     |          | 20             | years useful life     |                  |
| ÷                     |          | <u>60</u>      | <u>cows</u>           |                  |
| =                     |          | \$28.33        | /cow                  |                  |
| Fence Investment Cost |          |                |                       |                  |
|                       |          | \$34,000       | fence cost            |                  |
| +                     |          | \$0            | salvage value         |                  |
| =                     |          | \$34,000       | total                 |                  |
| ÷                     |          | 2              | average               |                  |
| x                     |          | 4.00           | % investment interest |                  |
| ÷                     |          | <u>60</u>      | <u>cows</u>           |                  |
| =                     |          | \$11.33        | /cow                  |                  |
| <b>Total</b>          | <b>=</b> | <b>\$95.66</b> | <b>/cow</b>           |                  |

**C. Labour**

|   |  |                |                |  |
|---|--|----------------|----------------|--|
|   |  | 4.0            | hours/cow/year |  |
| x |  | <u>\$10.00</u> | <u>/hour</u>   |  |
| = |  | \$40.00        | /cow           |  |

For further assistance contact your local Manitoba Agriculture and Food office

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